

A Recent Record of a Rock-Boring Clam, *Zirfaea crispata* (Linnaeus) from Newfoundland ¹

BY

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(1 Text figure; 1 Table)

TURNER (1954) MADE AN EXTENSIVE review of the Pholadidae of the western Atlantic and the eastern Pacific. In her monograph mention is made of an observation on *Zirfaea crispata* from the Newfoundland area. There is, however, no mention of the locality from which the specimen had come. The specimen examined by her carried no information on the details of collection (date, location, or collector). All that is known of the specimen is that it was contained in the large personal collection of Mr. John B. Henderson, portions of which were donated to the United States National Museum over the years from 1913 to 1920. The bulk of his collection from the New England area was deposited in 1915 (Byas, pers. comm.). Attempts to trace the exact source of the specimen have so far failed. This note represents a possible origin of the specimen now in the United States National Museum (cat. no. USNM 462636; length [antero-posterior axis], 39.2 mm; height [dorso-ventral axis], 26.3 mm).

During the course of giant-scallop investigations in Port au Port Bay, Newfoundland, evidence from characteristic rock borings in loose beach rocks and visible submerged bed rock indicated the possibility of the presence of boring clams in that area. On further investigation several live specimens were discovered in shallow water below low tide mark (Figure 1). The bivalves were found in depths ranging from 2 to 4 fathoms. While the clams in the upper extremity of their range were found in fairly continuous submerged bed rock, those nearer the shore were usually in small scattered fragments broken off from the main bed rock, perhaps by ice and tidal action.

The animals were small (Table 1) and were found boring into unconsolidated silt stone. The rock had a hardness of 2-3 (Mohr's scale), the hardness being slightly



Figure 1

Specimens of *Zirfaea crispata*
collected from Port au Port Bay, Newfoundland

less on the exposed surfaces where weathering had taken place. Local leaching out of carbonate material may account for this. Laboratory analysis of rock samples indicated that about 50% of the rock was made up of carbonates (all carbonates), the rest of the rock consisting of finer organic and clayey material. Thin sections of the rock indicated very fine grain material (modal size 100 μ to 250 μ) with secondary pyrite inclusions.

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Table 1

Length-height ratio of *Zirfaea crispata* from Port au Port Bay, Newfoundland (length measured in an antero-posterior axis and height from dorsal to ventral extremity of umbonal-ventral sulcus).

Length (mm)	Height (mm)	Ratio (L/H)
6.3	4.2	1.50
9.3	5.7	1.49
11.9	6.8	1.60
12.3	7.8	1.57
12.6	8.1	1.56
13.0	7.9	1.65

Soon after their discovery the clams were sent to Dr. R. D. Turner who kindly confirmed the identification. Two of the specimens examined have been deposited in the National Museum of Canada. The accession number for these is 68-210 and the NMC Catalogue number is 47313.

Mr. N. Rowe is responsible for the photograph shown in this communication.

Literature Cited

- TURNER, RUTH DIXON
1954. The family Pholadidae in the Western Atlantic and Eastern Pacific. Part I - Pholadinae. *Johnsonia* 3 (33): 1-63; pls. 1-34

